

ABSTRACT

A lead portion (25) of a heater coil (22) is constituted of a single coil wound into a coil and a bead portion (24) is constituted of a double coil formed by further winding the single coil into a coil. By constituting a detecting element (2) by burying the bead portion (24) in a heat conductive layer (21) and adhering a catalyst layer (23) on the surface of the heat conductive layer (21), improvement of the gas sensitivity and the response speed of a catalytic combustion gas sensor is facilitated. Zero point variation is reduced by improving impact resistance. When both ends of the heater coil are fixed to electrode pins, both ends of the heater coil are welded to the electrode pins using a resistance welding method, etc., with a platinum wire, etc., wound on a primary core wire, and thereafter, the primary core wire is melted and eliminated while leaving the platinum wire, etc., by a wet etching process.